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# Hobbling science

Citing cases in which the Soviet Union supposedly gained militarily by acquiring US high technology, either equipment or information, the Reagan Administration seems headed toward more comprehensive controls over the scientific community.

While the country obviously protect genuine military secrets, Congress and the public should be wary of secrecy policies that will hobble scientific research and undermine further technical advances that build a significant American leadership.

The alarm was sounded earlier this month by Adm. B. R. Inman, deputy director of the Central Intelligence Agency, in an address to the annual meeting of the American Association for the Advancement of Science; he cautioned scientists on the need for more stringent security reviews of their work to prevent exploitation by the Soviet Union. It was echoed two weeks later in an essay by Caspar W. Weinberger, Secretary of Defense, published in the Wall Street Journal.

In each case plausible arguments were offered for increased awareness of the issue by academic and corporate scientists and engineers, especially in the fields of weaponry and communications. In Inman's address, the field was broadened somewhat to include cases where "certain technical information could affect the national security in a harmful way. Examples include computer hardware and software, other electronic gear and techniques, lasers, crop projections, and manufacturing procedures."

Much of the information to which they allude appears in scientific journals or is built into equipment available on the open market. It is read and purchased not only by the Soviet Union, sometimes through straws in other countries, but is also read and purchased by Americans for their own use — and growth.

Weinberger in particular has been actively urging American allies to take seriously the

dangers of allowing the Soviet Union access to such information and products. The idea is apparently to construct a technological membrane through which no sensitive material might pass.

Given the enormous numbers of channels through which such information and products pass all over the world, the task seems impossible without sharply curtailing both legitimate communication within the scientific community and interfering with normal commercial activities — to the detriment of both.

It is important to bear in mind that the Inman-Weinberger proposals are not directed primarily at information about such long-standing secrets as thermonuclear weaponry. They are directed at discussions at the fringe of computer development and use; at manufacturing techniques for miniaturization that has led to the explosion of computer-on-a-chip technology; at programming for a host of applications. All of them are widely used in commercial applications as mundane as elaborate computer war games.

Such developments flourish in an atmosphere that combines competition with free flow of ideas and information. The world proposed by Inman and Weinberger, although they promise no excesses, has a decidedly different cast — one of self-policing if possible and bureaucratic policing if necessary. If the latter develops, as will almost surely be the case, then penalties will attach to those deemed in violation. Scientists and engineers will undoubtedly spend (waste?) some of their time looking over their shoulders for the censors.

Creativity may not dry up in such a world, but it impossible to believe that it will not be diminished. "Secrets" will still not be kept much better than they are today, in all likelihood. In that event, we will have the worst of both cases, to the detriment of the most dynamic sector of our scientific and technological society.